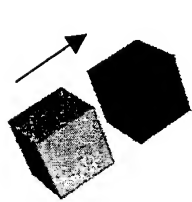
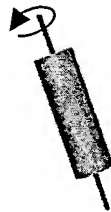
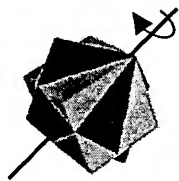


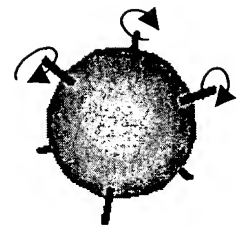
FIG. 1



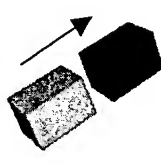
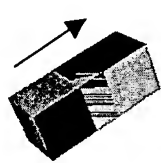
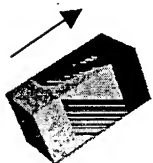
More sensitive to translations than rotations



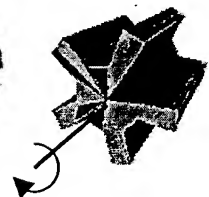
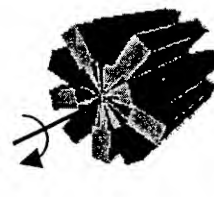
Different sensitivities to rotations about different axes



Insensitive to rotations about certain axes



Sensitivities different for different step sizes



Sensitivities w.r.t. step size depends on frequency of geometric features

FIG. 2

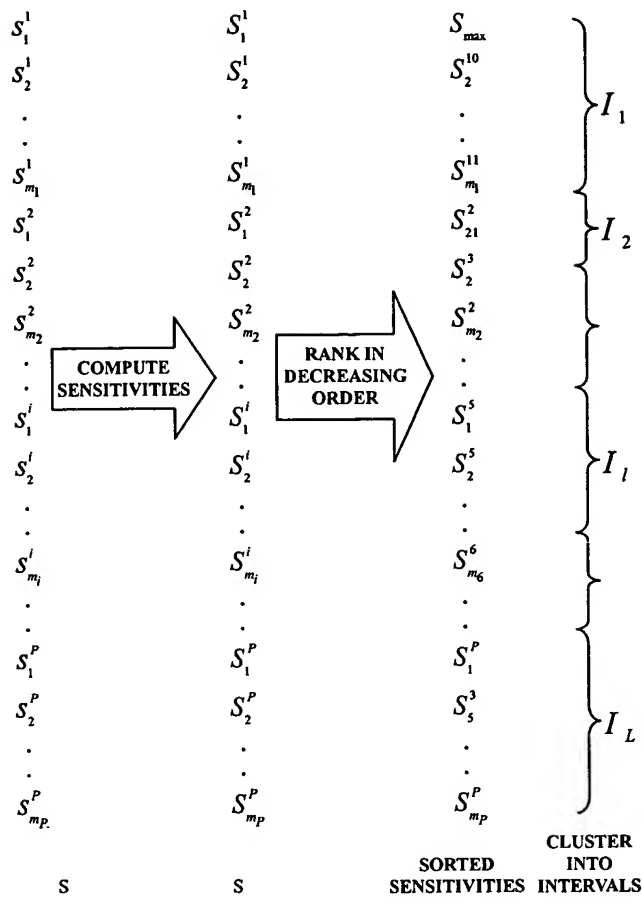


FIG. 4

1. The set  $S$  of all sensitivities  $S_i^k$  of the moves  $s_i^k$  is computed according to the Eq. (1);
2.  $S_{\max} = \arg \max(S_i^k); S_{\min} = \arg \min(S_i^k);$
3.  $u_l = S_{\max}; l_L = S_{\min};$
4.  $lsb_l = \rho usb_l; \text{ for } l = 1, 2, \dots, L-1; \rho = \left( \frac{S_{\min}}{S_{\max}} \right)^{\frac{1}{L}};$
5.  $usb_{l+1} = lsb_l; l = 1, 2, \dots, L;$
6. The sensitivities  $S_i^k$  are assigned to the appropriate intervals  $I_l$  such that  $l_l < S_i^k \leq u_l.$

FIG. 3

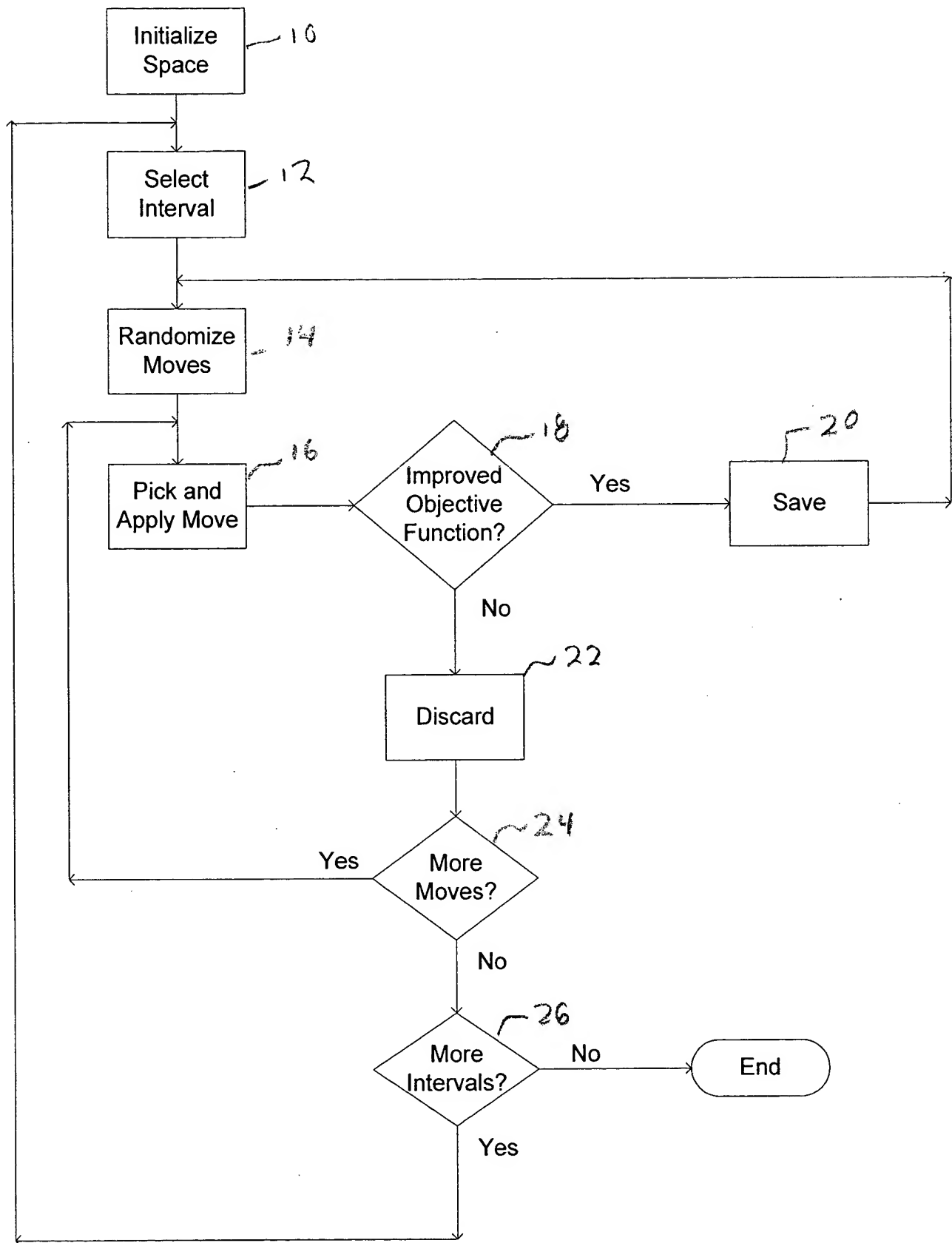


FIG. 5

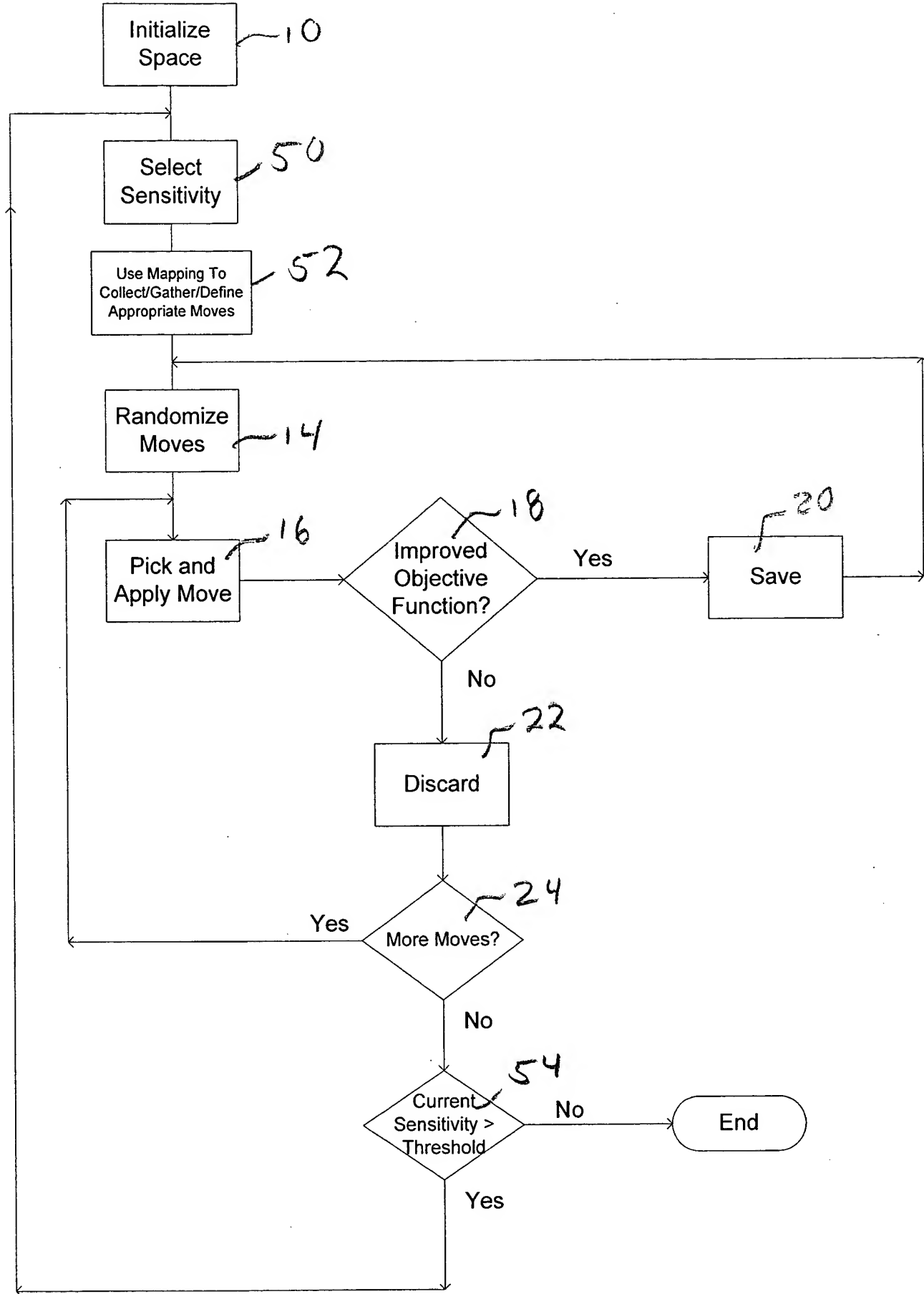
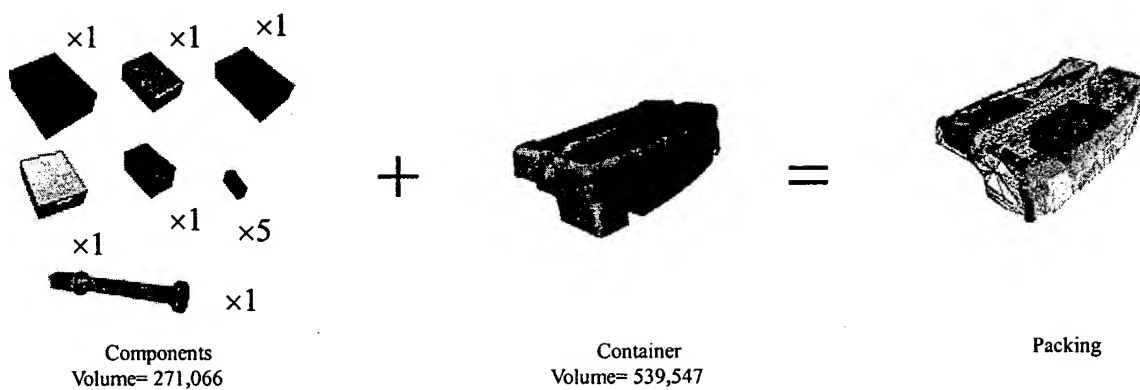


FIG. 6



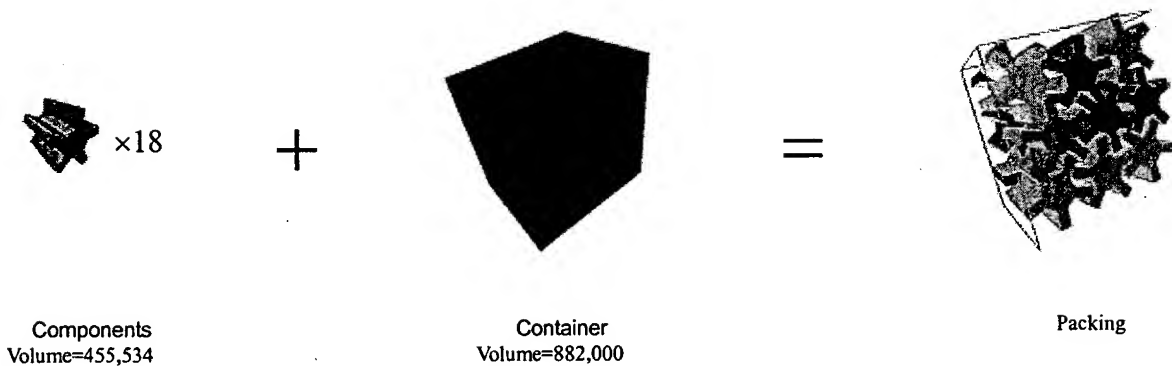
# DOF	99
Packing density	0.388

FIG. 7 (a) Mixed geometries in Sphere



# DOF	33
Packing density	0.502

FIG. 7 (b) Automobile Trunk



# DOF	72
Packing density	0.516

FIG. 7 (c) Gears in Cuboid

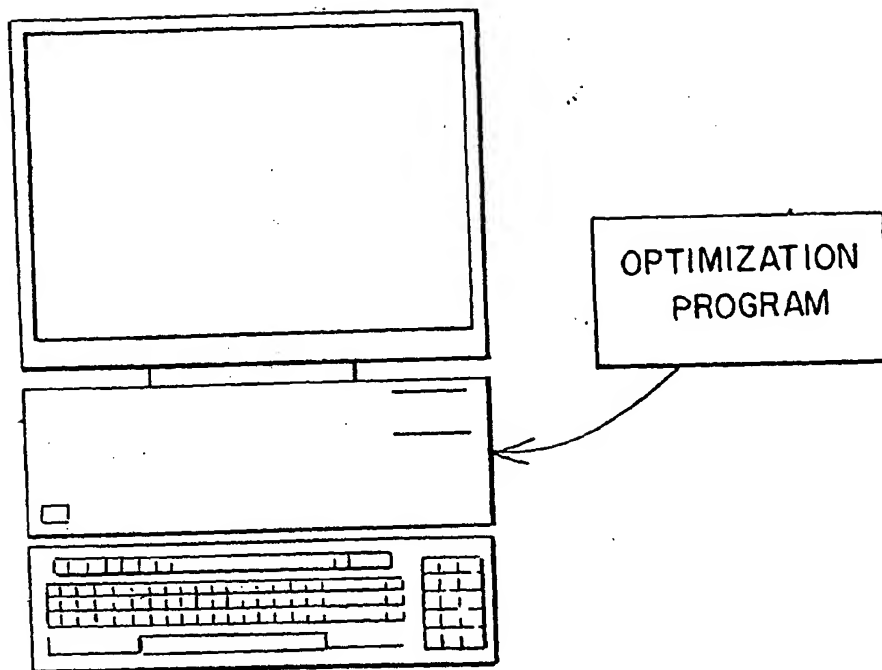


FIG. 8